Strychnine: Field Efficacy Study with Eggs on Franklin's Ground Squirrels

GEORGE H. MATSCHKE, PAUL L. HEGDAL, AND
KEITH J. ANDREWS

Denver Wildlife Reseach Center, Building 16, Box 25266, Denver
Federal Center, Denver, CO 80225-0266

Chicken eggs treated with 8.0 mg of strychnine alkaloid are registered by the Environmental Protection Agency for controlling Franklin's ground squirrels (Spermophilus franklinii). In a 1987 field test, we examined the efficacy of this control method with eggs containing 8.0 mg, 6.0 mg, and 4.0 mg of strychnine. Initially, we placed the eggs next to burrow entrances; radio telemetry and automatic movie cameras were used to monitor squirrel movements and predation on the eggs. The free-roaming animals essentially ignored the eggs. Of 62 animals, 23 (37%) consumed the eggs; of these 14 (61%) died. We modified the test procedure and placed eggs inside live traps with captive squirrels for 24 hours. Of 135 animals so exposed, 133 consumed eggs, 2 did not consume eggs, 114 died, 17 survived, and 2 escaped. If the limited acceptance of strychnine-treated eggs by free-ranging Franklin's ground squirrels is characteristic of results to be expected under operational control programs, then either an improvement in the delivery system or a different control method is needed.